

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1912.

DISTRICT No. 11, CALIFORNIA.

Prof. ALEXANDER G. McADIE, District Editor.

GENERAL SUMMARY.

September, 1912, was cool; but not so cool as September, 1911, which was the coolest September in a period of 17 years. The present September was, relatively speaking, a wet month—that is, more rain fell than in any September since 1897, with the single exception of September, 1904, which was the雨iest September on record. It must not, however, be understood that the month was rainy in the usual sense, for practically all the rain fell during the first week. Last year the first rain of the season did not occur until the 28th. This year the rain began as early as the 2d.

There were no special features of importance in the general character of the weather. The first week was unsettled; but for the rest of the month there was a succession of bright days with moderate temperature, and there was less than the usual amount of fog along the coast. There were no unusual temperatures in the Great Valley or in the southeastern counties. In the Salton Desert section the highest temperature recorded was 108°, which is several degrees lower than the maximum usually recorded on September afternoons in this section.

The month began with pressure distribution favorable for southwest winds and rain in the northern counties. Showery weather prevailed for six days in the central and northern counties; but the rain area did not extend as far south as was anticipated. The rain was unusually heavy in the Sacramento Valley and the San Francisco Bay section. In the northern part of the Sacramento Valley more than 3 inches were recorded in 24 hours on the 6th. In the Sierra snow fell and a depth of 2 inches was reported on the ground at Summit. There was a decided change in pressure distribution on September 7, and conditions were such as to favor north winds and dry weather for a period of 20 days. The map of September 17, p. m., is interesting as a typical warm-weather map. September 18 was the warmest day of the year at many points in central and northern California. At San Francisco a maximum temperature of 94.5° occurred, which is the highest for the year; the next warmest day being June 2, when a temperature of 93° was recorded.

From an agricultural standpoint conditions were favorable. Ample warning of impending rain was given to the raisin growers and fruit dryers. It was necessary to stack the trays several times; but in general the loss was small. The rain did not extend far enough south to damage the bean crop in the southern coast counties.

TEMPERATURE.

The mean temperature of the State was 2° below the normal, this being with two exceptions the greatest negative departure in 10 years.

The following table gives the temperature means and departures for each September from 1897 to 1912, inclusive:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
	°F.	°F.		°F.	°F.
1897.....	67.7	-0.8	1905.....	68.6	+0.1
1898.....	69.2	+0.7	1906.....	68.6	+0.1
1899.....	70.9	+2.4	1907.....	65.6	-2.9
1900.....	65.4	-3.1	1908.....	68.1	-0.4
1901.....	66.0	-2.5	1909.....	68.2	-0.3
1902.....	70.7	+2.2	1910.....	67.3	-1.2
1903.....	68.7	+0.2	1911.....	63.9	-4.6
1904.....	70.3	+1.8	1912.....	66.5	-2.0

The highest temperature recorded at any station was 111° at Mammoth Tank, on the 19th. This was 1° lower than the highest temperature recorded during September, 1911. The lowest temperature during the month was 20°, which occurred at Tamarack on the 12th and at Quincy on the 25th. This was 3° higher than the lowest recorded during September, 1911. The highest monthly mean was 86.7° at Bagdad, which was 1.2° below the highest monthly mean of the preceding September, which also occurred at Bagdad. The lowest monthly mean was 44.2° at Tamarack, which was 1.4° below the monthly mean for September, 1911, at the same place.

PRECIPITATION.

The month was for September quite wet. It was next to the雨iest September on record, but nearly all the rain fell during the first week. The rainfall was not well distributed geographically and the southern counties obtained very little, if any.

The following table gives the average precipitation and departure from the normal for each September from 1897 to 1912, inclusive:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
	°F.	°F.		°F.	°F.
1897.....	0.03	-0.46	1905.....	0.16	-0.33
1898.....	.64	+.15	1906.....	.25	-.24
1899.....	.03	-.46	1907.....	.13	-.36
1900.....	.22	-.27	1908.....	.49	.00
1901.....	.94	+.45	1909.....	.52	+.03
1902.....	.01	-.48	1910.....	.69	+.20
1903.....	.10	-.39	1911.....	.19	-.30
1904.....	2.66	+2.17	1912.....	1.65	+1.16

The greatest monthly rainfall was 9.15 inches at Sterling City, which was 5.49 inches in excess of the greatest monthly rainfall of September, 1911. There was no rainfall at 69 stations. The heaviest 24-hour rainfall was 5.37 inches at Durham.

SNOWFALL.

Snow fell in the Sierra September 5-6, but did not long remain on the ground. A depth of 2 inches was reported at Summit on the 6th, which melted within 24

hours. Near Mount Whitney, on its eastern slope, 2 inches fell, September 5 and 6, above 12,000 feet. On the 28th also 2 inches fell.

SUNSHINE.

The following table gives the total hours of sunshine and percentages of the possible:

Stations.	Hours.	Percent- age of possible.	Stations.	Hours.	Percent- age of possible
Eureka.....	112	30	Sacramento.....	330	89
Fresno.....	348	93	San Diego.....	278	75
Los Angeles.....	287	71	San Francisco.....	243	65
Mount Tamalpais.....	271	73	San Jose.....	293	79
Red Bluff.....	313	84	San Luis Obispo.....	276	74

NOTES ON THE RIVERS OF THE SACRAMENTO AND LOWER SAN JOAQUIN WATERSHEDS DURING SEPTEMBER, 1912.

By N. R. TAYLOR, Local Forecaster.

Sacramento watershed.—All streams in this watershed averaged slightly above the stages that obtained during the preceding month. They were, however, abnormally low, especially the Sacramento River between Walnut Grove and the mouth of the Feather, which was lower than for any previous September of which there is a record.

General rains throughout the drainage basin of the Sacramento Valley during the first decade of the month resulted in rapid rises in the main rivers and freshets in some of the smaller watercourses. The greatest 24-hour rise in the Sacramento was at Colusa, where it rose 6.7 feet and culminated in a stage of 11.2 feet on the 8th. The crest of this rise reached Sacramento city on the 9th. After this date the river fell steadily.

In the watershed of the Feather-Yuba River there was a substantial rise during the three days ending on the 9th, but after this date both streams fell rapidly, and by the end of the month they had reached the extreme low-water stages that prevailed prior to the rains.

In the American River watershed the rainfall was lighter than in any other section of the valley, and as a result there was little change in the run-off of this stream.

There was a marked improvement in the navigability of the Sacramento River as a result of the rise, which swept away many of the sand bars that had formed at various points in this stream.

San Joaquin watershed.—The rivers of this watershed averaged about 0.5 of a foot above their height during the preceding month, due to the rains that were more or less general in the first decade of the month. The rises, however, were slight, the greatest being 1 foot in the Tuolumne River at Jacksonville during the 24 hours ending at 7 a. m. of the 8th.

NOTES ON STREAMS AND WEATHER OF THE UPPER SAN JOAQUIN WATERSHED.

By W. E. BONNETT, Local Forecaster.

Although low, the mean stages of the streams of this district for September were higher than the stages for that month in several other years of the last six and in some cases higher even than the September average for that period.

At Merced Falls the mean stage was 0.3 foot, equalling the 1911 stage and exceeding the September stages in the years 1907 to 1910, inclusive. Daily gage heights were very uniform throughout the month, with a range of but 0.2 foot. In the San Joaquin the average monthly stage

at Firebaugh was -0.5 foot, or slightly lower than the 6-year mean, and higher than the stages in 1908, 1909, and 1910.

On the whole, weather conditions were favorable. A fall of 0.10 inch of rain occurred on the 3d, making the third date in 26 years on which there has been measurable rainfall between August 1 and September 3. The temperature was about one degree below normal. The first decade was so cool that the high temperature during the remainder of the month did not overcome the negative departure.

EXCESSIVE RAINS IN CALIFORNIA.

By A. G. McADIE.

In an article in the Monthly Weather Review, July, 1912, page 1062, Mr. Edward D. Coberly gives an extensive tabulation of all monthly rainfalls of 10 inches or more and of all amounts of 4 inches or more in 24 hours that have occurred in the State of Louisiana. It has occurred to the writer that a somewhat similar table for California would be of value not only for engineers and others interested in power questions, but also for students of climatology who may be interested in studies of heavy rainfall in various parts of the United States.

It is evident from the figures that follow that certain portions of California may well be considered as lying within the zone of maximum intensity of rainfall in the United States. It may also be noted that the records are of comparatively recent date and have been made with standard 8-inch gages properly exposed.

The following table shows the heaviest recorded rainfall in California during the past 10 years: The greatest annual amount is 153.54 inches (3,900 mm.) at Monumental, Del Norte County, exact elevation not determined. This occurred in 1909. This is not given in the list compiled by Mr. Coberly, although in excess of any of the rainfalls quoted for places in the United States, except Glenora, Oreg., record of 1896, when 167.29 inches (4,250 mm.) fell, and the same place in 1897, 156.50 inches (3,969 mm.) fell.

Rainfalls exceeding 100 inches (2,540 mm.) have occurred at many points in California. From an inspection of long period records made at several stations in California, we are justified in concluding that the year 1909 in California was the year of heaviest rainfall. The years 1871, 1879, 1880, 1882, 1884, 1893, 1896, 1899, 1904, 1907, and 1911 were all years of heavy rainfall; but it is doubtful if the total amount at any one station was in excess of that which fell during 1909.

Excessive annual rainfalls in California.

Stations.	Elevation.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.	1902.
	Feet.										
Monumental.....	2,321	77.62	49.32	150.62	44.96	96.32	125.01	48.16	94.40	.....	.....
Magalia.....	5,000	60.22	141.40	58.08	113.94	124.46	.....	.....	77.04	89.09	.....
La Porte.....	2,750	73.81	50.76	136.86	53.90	103.13	129.69	68.03	114.72	67.37	137.58
Helen Mine.....	4,975	78.49	58.08	134.18	56.42	.....	.....	.....	.....	.....	.....
Inskip.....	2,000	65.17	56.49	130.14	59.06	108.42	99.08	55.03	115.07	91.06	120.35
Branscomb.....	3,250	.....	125.28	.....	103.18	125.41	.....	.....	.....	.....	.....
Woolleaf.....	6,500	71.03	47.41	125.28	41.88	86.14	120.64	43.16	75.69	63.31	65.59
Fordyce Dam.....	(Nevada Co.)	4,600	72.75	49.44	119.39	45.47	94.47	110.85	46.93	103.59	67.44
Bear Valley.....	Pilot Creek.....	4,000	79.94	44.01	113.98	41.96	87.15	110.61	42.56	93.98	68.66
Brush Creek.....	4,695	67.27	42.13	110.72	40.97	100.17	104.21	46.65	93.48	64.18	64.99
Nimsbaw.....	3,525	66.20	35.75	108.63	33.56	111.20	125.08	44.02	.....	.....	.....
Crescent City.....	2,140	66.53	37.62	104.65	48.57	86.64	106.25	50.63	91.98	.....	.....
Upper Mattole.....	500	65.70	40.36	103.26	44.82	82.21	104.00	43.11	.....	.....	.....
Bowmans Dam.....	244	64.13	62.81	121.79	61.93	99.84	85.70	70.04	126.53	94.88	123.26

TABLE 1.—Climatological data for September, 1912. District No. 11, California.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.	Prevailing wind direction.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of clear days, 0.01 inch or more.	Number of partly cloudy days.	Number of overcast cloudy days.			
<i>Oregon.</i>																				
Klamath Agency.	Klamath.	4,169	4	51.4	- 3.4	90	12	26	29†	56	1.30	+ 0.51	0.50	0	3	21	3	6	w. nw.	
Klamath Falls	do	4,100	23	54.8	- 3.4	83	18	31	24	39	1.04	+ 0.51	0.71	0	5	17	8	5	Do.	
Lakeview	Lake.	4,825	29																	
Merrill.	Klamath.	4,070	6																	
Yonna	do	4,146	5	52.7		85	17	22	22†	60	0.88		0.33	0	4	6	17	7	sw.	
<i>California.</i>																				
Alameda.	Alameda.	19	2	55.6		90	18	25	25	59	0.84		0.53	0	5	20	7	3	nw. nw.	
Alturas.	Modoc.	4,460	8	61.2	- 3.4	97	26	40	11	45	1.72	+ 1.19	1.00	0	4	21	1	8	Do.	
Angola.	Tulare.	208	12	71.6	- 0.2	101	19	50	5	35	0.00	- 0.35	T.	0	0	23	0	0	ne. ne.	
Antioch**.	Contra Costa.	46	33	73.4	+ 2.3	92	23	52	17	..	0.18	- 0.10	0.18	0	1	23	0	7	Southern Pacific Co.	
Aptos**.	Santa Cruz.	102	27	64.0	+ 3.1	88	12	50	30	..	0.97	+ 0.45	0.82	0	2	21	1	8	Do.	
Arrowhead Springs.	San Bernardino.	2,000	3																Dr. E. A. Crokat.	
Auburn.	Placer.	1,360	41	67.6	- 3.4	97	26	40	11	45	1.72	+ 1.19	1.00	0	4	21	1	8	Southern Pacific Co.	
Avalon.	Los Angeles.	30	2	65.6		98	19	54	5	35	0.00	- 0.28	0.00	0	0	29	1	0	T. S. Manning.	
Azusa.	do	540	10	70.2	- 0.8	101	19	44	4	49	0.00	- 0.28	0.00	0	0	27	2	1	A. P. Griffith.	
Bagdad.	San Bernardino.	784	9	86.7		104	19	63	27	33	0.00	- 0.19	0.00	0	0	30	0	0	Santa Fe Co.	
Bakersfield.	Kern.	404	23	73.2	- 1.5	96	19	52	5†	36	0.00	- 0.16	0.00	0	0	30	0	0	Do.	
Barstow.	San Bernardino.	2,105	9	73.4		101	20	47	5	41	0.00	- 0.16	0.00	0	0	30	0	0	E. L. White.	
Berkeley.	Alameda.	317	25	65.3	+ 3.9	101	18	48	3	35	1.46	+ 0.88	0.90	0	3	17	5	8	State University.	
Biggs**.	Butte.	93	13	72.1	+ 0.5	95	11	58	4†	..	4.58	+ 4.12	2.85	0	4	26	1	3	Southern Pacific Co.	
Bishop.	Inyo.	4,450	17																Paul E. Lodge.	
Bishop Creek.	do	8,500	2	49.7		69	1†	26	5	30	0.00		0.00	0	0	27	0	3	Do.	
Blocksburg.	Humboldt.	1,700	6	61.2		93	18†	40	2	44	6.43		1.38	0	8	13	6	11	nw.	
Blue Canon.	Placer.	4,695	13	54.5	- 4.9	79	17	32	3†	40	3.63	+ 2.56	1.78	0	4	25	0	5	Do.	
Blythe.	Riverside.	268	3	74.8		107	20	41	27	59	T.		T.	0	0	25	2	3	ne.	
Branscomb.	Mendocino.	2,000	12	60.6		95	19	38	4†	45	6.60	+ 4.45	2.88	0	5	20	4	6	D. H. Carey.	
Brawley.	Imperial.	-105	3	79.9		107	20	55	6	46	0.00		0.00	0	0	25	4	1	A. J. Hann.	
Burney.	Shasta.	3,300	2	56.0		88	18†	30	25†	52	3.56		2.24	0	4	16	4	10	M. D. Witter.	
Cahuilla.	Riverside.	3,600	1	61.5		94	18	29	5	54	0.00		0.00	0	0	30	0	0	Mrs. M. D. Chambers.	
Calexico.	Imperial.	0	7	81.0		105	19	55	5	39	0.00		0.00	0	0	22	0	8	Carl Stevens.	
Caliente**.	Kern.	1,290	36	77.9	+ 2.9	99	22	58	17	..	0.27	+ 0.18	0.27	0	1	22	0	8	J. E. Peck.	
Calistoga.	Napa.	363	40	63.5	- 3.2	99	18	50	2†	..	3.41	+ 2.93	2.40	0	3	22	0	8	Southern Pacific Co.	
Campbell.	Santa Clara.	217	15	64.4	+ 1.4	98	18	42	5	54	0.47	+ 0.04	0.34	0	3	23	2	5	Do.	
Camptonville (near).	Yuba.	3,500	5	67.2		100	18	40	5	40	2.64		2.21	0	5	22	2	6	F. M. Righter.	
Cedarville.	do	4,675	18	56.5	- 2.6	86	18†	30	9	47	0.72	+ 0.17	0.18	0	0	20	10	0	Cal. Gas & Electric Co.	
Chico.	Butte.	189	42	69.4	- 5.2	94	12†	45	25	45	4.84	+ 4.34	4.26	0	3	24	0	6	T. H. Johnstone.	
China Flat.	Humboldt.	600	3	63.2		92	15	42	25	42	4.79		2.36	0	7	20	2	8	C. H. Stephenson.	
Chino**.	San Bernardino.	714	20	74.7	+ 2.4	90	13†	56	3	..	0.00	- 0.10	0.00	0	0	25	0	5	O. I. Westerburg.	
Cisco**.	Placer.	5,939	41	61.1	+ 5.4	82	15†	42	7	..	3.08	+ 2.47	2.10	1	0	4	24	2	4	Southern Pacific Co.
Claremont.	Los Angeles.	1,200	20	71.0	+ 0.4	103	18	45	4	48	T.	- 0.13	T.	0	0	19	10	1	Do.	
Cloverdale.	do	340	10	66.4	- 1.2	103	18	42	3	47	2.79	+ 2.13	1.82	0	5	22	1	7	Prof. F. P. Brackett.	
Coalinga.	Sonoma.	741	1	67.2		106	20	47	5†	49	0.00		0.00	0	0	26	0	4	John O. Ogle.	
Colfax.	Placer.	2,421	41	64.3	- 5.2	94	19	42	4†	33	2.80	+ 2.14	1.45	0	4	18	3	9	Union Oil Co.	
Colusa.	Colusa.	60	9	67.4		94	18	49	3	36	3.20	+ 2.88	2.03	0	3	23	0	7	C. D. McComish.	
Corning**.	Tehama.	277	26	73.7	- 0.2	95	18	52	6	..	4.61	+ 4.19	3.72	0	3	20	7	3	Southern Pacific Co.	
Cuyamaca.	San Diego.	4,677	13	59.9	- 0.2	83	20	33	4	34	0.01	- 0.59	0.01	0	1	25	5	0	L. L. Macquarie.	
Davissville.	Yolo.	51	40	68.2	- 3.8	100	18	39	24	50	1.22	+ 0.96	1.11	0	3	21	6	3	S. H. Brackett.	
Deer Creek.	Nevada.	3,700	5	57.4		88	18	34	5	42	3.54		1.27	0	6	23	3	4	Cal. Gas & Electric Co.	
Del Monte.	Monterey.	25	1	65.4		89	18	50	17	27	0.20		0.15	0	2	22	5	3	H. R. Warner.	
Delta.	Shasta.	1,138	27	67.4	- 2.3	94	21	45	13	42	3.75	+ 2.64	2.35	0	5	23	1	6	Southern Pacific Co.	
Denair.	Stanislaus.	126	12	66.4	- 4.5	96	13†	38	25	56	0.10	- 0.07	0.10	0	1	22	3	5	Santa Fe Co.	
De Sabla.	Butte.	2,500	8	63.0		91	18	39	3	38	7.15		5.20	0	4	18	6	6	Cal. Gas & Electric Co.	
Dobbins (near).	Yuba.	1,650	8	70.2		100	18	50	5†	38	1.82		1.37	0	4	17	8	5	Do.	
Downieville.	Sierra.	3,150	1	61.0		91	18	39	3	50	2.33		2.02	0	5	17	8	5	J. T. Mason.	
Dudley.	Kings.	595	..	77.4		102	13†	48	4	43	0.00		0.00	0	0	18	12	0	Union Oil Co.	
Dudleys.	Mariposa.	3,000	3	59.6		89	18	33	5	43	1.42		0.67	0	3	19	8	3	W. H. Dudley.	
Dunlap (near).	Fresno.	2,800	25	73.2	- 1.1	98	13	49	5	37	0.10	- 0.09	0.10	0	1	22	7	1	U. S. Forest Service.	
Dunnigan**.	Yolo.	65	35	76.1	+ 1.5	98	18†	58	4	40	4.02	+ 3.61	2.75	0	2	23	2	5	Southern Pacific Co.	
Dunsmuir**.	Siskiyou.	2,285	23	57.1	- 4.2	94	19	38	2†	..	4.18	+ 3.04	2.30	0	5	24	0	6	Do.	
Durham.	Butte.	180	17	68.4	- 1.8	93	18†	45	3	40	5.56	+ 4.81	5.37	0	4	20	6	4	R. W. Durham.	
El Cajon.	San Joaquin.	111	33	76.2	+ 4.2	98	22	59	30	..	0.93	+ 0.57	0.93	0	1	26	1	3	H. H. Kessler.	
Electra.	Sacramento.	252	40	69.0	- 2.8	98	18	51	5	40	1.55	+ 1.15	0.97	0	4	22	3	5	Cal. Gas & Electric Co.	
Elsinore.	Nevada.	6,500	17	51.4		77	18	31	30	36	5.02	+ 3.36	2.05	3.0	4	17	8	5	E. O. Hutton.	
Emigrant Gap.	Folsom.	4,735	23	51.3	- 10.5	85	18	22	24	57	0.50	+ 0.12	0.30	0	3	20	0	10	E. E. Roening.	
Escondido.	Modoc.	1,234	23	67.1	- 1.6	106	18†	40	4	54	0.00	- 0.16	0.00	0	0	24	5	1	E. O. Franklin.	
San Diego.	Placer.	5,230	33	68.2	- 0.3	90	18	44	4†	..	0.14		0.14	0	1	22	7	1	A. F. Schult.	
Galt**.	San Joaquin.	657	18	68.2	- 6.8	90	18	42	4	45	3.62	+ 2.77	1.90	0	4	22	0	8	Southern Pacific Co.	
Georgetown.	do	1,249	33	66.2	- 6.8	90	18	42	4	45	3.62	+ 2.99	3.10	0	7	24	0	18	A. R. Moon.	
Gilroy**.	do	1																		

TABLE 1.—Climatological data for September, 1912. District No. 11—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.								Precipitation, in inches.								Sky.				Prevailing wind direction.	Observers.						
				Mean.				Departure from the normal.				Highest.				Lowest.				Greatest daily range.				Total.							
				Date.		Date.		Date.		Date.		Date.		Date.		Date.		Date.		Date.		Date.		Date.		Date.					
California—Continued.																															
Independence.	Inyo.	3,907	16	65.8	-3.3	91	19	39	5	38	0.00	-0.07	0.00	0	0	26	4	0	nw.	U. S. Weather Bureau.	F. N. Johnson.										
Indio.	Riverside.	-20	34																									Cal. Gas & Electric Co.			
Inskip.	Butte.	4,975	5	61.0	-0.6	94	18	32	3	38	7.12	-0.45	4.79	0	5	16	8	6	nw.	Southern Pacific Co.	Sierra Railway Co.										
Ione**	Amador.	287	34	72.2	+0.6	94	11†	54	5†	2.34	+1.96	1.84	-0.42	0	3	24	0	4	26	0	4	ne.	O. J. Egleston.	Miss M. E. Parsons.							
Jamestown.	Tuolumne.	1,471	9	67.4	-0.7	95	18	43	5	40	1.20	-0.21	2.11	-0.21	0	4	20	0	5	22	4	4	ne.	Southern Pacific Co.	O. J. Tordt.						
Kennett.	Shasta.	730		69.4	-0.5	99	18	43	3	42	3.52	-0.21	3.20	-0.21	0	5	25	0	5	25	5	5	sw.	Chas. W. Hendel.	Santa Fe Co.						
Kentfield.	Marin.	65	24	64.4	-0.5	98	18	45	26	48	4.24	+3.36	4.24	-0.21	0	1	25	0	5	22	4	4	ne.	G. W. Sandige.	The Director.						
King City.	Monterey.	333	25	71.3	+4.5	101	12	42	13	58	0.02	-0.21	0.02	-0.21	0	1	25	0	5	25	5	5	sw.	E. G. Still.	Ezra Fiske.						
Lake Eleanor.	Tuolumne.	4,700	2	57.9	-0.5	87	18	33	5	43	1.85	-0.08	1.07	-0.08	0	2	22	5	3	22	5	3	sw.	G. F. Marsh.	A. G. Evans.						
La Porte.	Plumas.	5,000	18	55.2	0.0	81	18	35	4†	33	3.53	+1.64	2.30	-0.08	0	5	19	8	3	s.	O. J. Tordt.	Union Oil Co.									
Le Grand.	Merced.	255	12																												
Lemon Cove.	Tulare.	600	17	74.4	-0.5	101	13†	41	4	48	T.	-0.45	T.	-0.45	0	0	21	7	2	w.	Do.	G. F. Spencer.									
Lick Observatory.	Santa Clara.	4,209	23	60.4	-2.2	84	18	37	3	21	2.01	+1.65	1.62	-0.25	0	5	20	4	6	n.	Butte Valley Land Co.	J. H. Williams.									
Livermore.	Alameda.	485	41	69.2	+1.0	100	12†	46	5†	47	0.48	+0.15	0.39	-0.34	0	4	21	4	5	w.	E. H. McCullagh.	F. H. Palmer.									
Lodi.	San Joaquin.	45	30	68.4	-1.3	96	18	48	25	37	0.77	+0.34	0.58	-0.34	0	3	23	5	2	w.	Union Oil Co.	John C. Knecht.									
Lone Pine.	Inyo.	2,728	7	62.8	-0.5	93	23	33	6	50	0.00	-0.08	0.00	-0.08	0	0	29	1	0	s.	Southern Pacific Co.	W. H. Southwick.									
Long Valley.	Lassen.	4,400	3	58.0	-0.5	86	19	36	9†	43	0.47	-0.08	0.18	-0.08	0	3	16	11	3	sw.	Edwin Morris.	Edwin Morris.									
Los Angeles.	Los Angeles.	293	35	65.6	+2.1	100	19	54	13	38	0.00	-0.08	0.00	-0.08	0	0	20	9	1	sw.	U. S. Weather Bureau.	U. S. Weather Bureau.									
Los Banos**.	Merced.	121	25	72.2	-0.6	97	14	60	4†	37	0.00	-0.13	0.00	-0.13	0	0	20	0	10	w.	Santa Fe Co.	Santa Fe Co.									
Los Gatos.	Santa Clara.	600	25	66.4	+0.8	97	18	45	3†	45	1.59	+1.02	1.50	-0.25	0	3	22	2	6	n.	Union Oil Co.	Union Oil Co.									
McCloud.	Siskiyou.	3,410	2	55.5	-0.5	80	18	32	3	36	4.76	-0.08	2.05	-0.08	0	6	22	2	6	s.	Do.	C. E. Prindle.									
MacDoel.	do.	4,528	7	52.6	-0.5	83	18	27	25	53	1.79	-0.08	1.07	-0.08	0	4	16	3	11	n.	Herbert Lathrop.	I. E. Deboy.									
Madeline.	Lassen.	5,270	3	52.4	-0.5	85	18	25	25	54	0.57	-0.08	0.30	-0.08	0	3	18	5	2	se.	Do.	John C. Knecht.									
Mammoth Tank.	Butte.	2,321	8	64.7	-0.5	96	18	40	3	40	9.03	-0.08	4.33	-0.08	0	4	22	3	5	se.	Chabot Observatory.	E. D. Fairchild.									
Maricopa.	Imperial.	257	34	86.2	-3.8	111	19†	62	5†	41	0.00	-0.04	0.00	-0.04	0	0	30	0	0	n.	W. H. Duncan.	W. H. Duncan.									
Marysville.	Kern.	640	1	74.8	-0.5	100	19	50	4	37	0.00	-0.24	0.01	-0.24	0	1	19	8	3	n.	U. S. Weather Bureau.	Alex. Hall.									
Mecca.	Yuba.	67	41	69.6	-4.4	98	18	47	3	42	2.40	+2.06	1.45	-0.24	0	0	28	2	0	e.	W. H. Martin.	T. O. Bailey.									
Menlo Park**.	Riverside.	-185	6	81.3	-0.5	109	19	54	10	45	0.00	-0.08	0.00	-0.08	0	0	24	0	6	se.	Do.	S. W. Marsh.									
Merced.	San Mateo.	64	34	73.7	+9.6	96	18†	54	27†	..	0.65	+0.33	0.50	-0.33	0	3	20	6	4	n.	Do.	E. S. Wangenheim.									
Middlewater.	Merced.	173	38	74.2	+0.5	100	14	50	3	39	0.13	-0.09	0.13	-0.09	0	1	26	1	3	nw.	Do.	John McIntosh.									
Mill Creek (1).	Amador.	5	67.9	-0.5	93	18	39	5	42	3.49	-0.08	1.78	-0.08	0	4	20	8	2	n.	U. S. Forest Service.	U. S. Forest Service.										
Milton (near).	Calaveras.	660	21	71.0	-0.6	96	18	51	4	30	1.60	+1.20	1.29	-0.25	0	3	24	3	3	nw.	Do.	Do.									
Modesto**.	Stanislaus.	90	40	76.7	+2.0	95	13	60	4†	25	0.25	+0.05	0.25	-0.25	0	1	23	0	2	n.	Do.	C. E. Prindle.									
Mojave.	Kern.	2,751	35	72.0	-1.9	91	20	48	3	22	0.00	-0.08	0.00	-0.08	0	0	25	5	0	sw.	Do.	Herbert Lathrop.									
Mokelumne Hill.	Calaveras.	1,550	19	69.3	+1.5	93	18	45	4	33	3.12	+2.53	1.68	-0.25	0	4	20	3	7	w.	Do.	I. E. Deboy.									
Mono Ranch.	Ventura.	3,210	6	61.0	-0.5	89	18	34	5	50	0.00	-0.08	0.00	-0.08	0	0	21	9	0	w.	Do.	John C. Knecht.									
Montague.	Siskiyou.	2,450	15	59.5	-0.6	87	18	31	25	51	2.30	+1.98	1.52	-0.15	0	2	25	5	0	se.	Do.	W. H. Duncan.									
Monterey.	Monterey.	15	47	67.4	+5.9	90	17†	56	26†	..	0.19	-0.08	0.15	-0.08	0	0	17	7	10	nw.	Do.	W. H. Duncan.									
Monterio.	Kern.	4,500	13	58.6	-1.1	85	76	2	40	13	28	0.00	-0.24	0.00	-0.24	0	0	17	7	10	nw.	Do.	W. H. Duncan.								
Mount Tamalpais.	Marin.	2,371	15	63.7	-2.4	87	18	45	3	37	2.35	+1.83	2.10	-0.24	0	0	20	4	6	nw.	Do.	Alex. Hall.									
Napa City.	Napa.	30	35	65.0	+2.0	95	11†	40	5	47	2.37	+1.86	2.00	-0.24	0	2	14	16	0	s.	Do.	W. H. Martin.									
Napa (S. H.).	do.	60	34	68.8	+2.8	103	18	50	4†	41	2.52	+2.01	1.50	-0.24	0	2	10	14	6	sw.	Do.	T. O. Bailey.									
Nellie.	San Bernardino.	3,350	3	63.0	-0.5	100	18	55	26	37	0.00	-0.24	0.00	-0.24	0	0	30	0	0	n.	Do.	P. W. Moore.									
Nevada City.	Nevada.	2,580	20	62.0	-0.2	96	18	38	5†	52	2.68	+1.91	1.11	-0.24	0	5	20	6	4	sw.	Do.	S. W. Marsh.									
Newhall **.	Los Angeles.	1,200	35	71.0	-0.5	106	17	50	27	..	0.00	-0.40	0.00	-0.40	0	0	24	0	6	se.	Do.	Do.									
Newman.	Stanislaus.	91	23	72.5	-1.1	104	19	49	5†	41	0.14	-0.08	0.12	-0.08	0	2	22	3	5	s.	Do.	E. S. Wangenheim.									
North Bloomfield.	Madera.	3,000	8	64.0	+0.2	91	18	44	5	30	3.15	+2.03	2.00	-0.24	0	2	22	3	5	sw.	Do.	U. S. Forest Service.									
North Fork.	Stanislaus.	156	18	73.2	+2.8	98	18	54	4	48	0.59	+0.38	0.32	-0.24	0	3	25	4	1	nw.	Do.	Do.									
Oakdale **.	do.	2,751	2	65.4	-0.5	99	19	33	5	49	0.00	-0.08	0.00	-0.08	0	0	24	6	0	nw.	Do.	B. L. Johnson.									
Oak Grove.	San Diego.	36	36	64.5	+3.3	94	18	52																							

TABLE 1.—*Climatological data for September, 1912. District No. 11—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of overcast days.		
<i>California—Continued.</i>																				
Selma **.	Fresno.	311	26																Southern Pacific Co.	
Seven Oaks.	San Bernardino.	5,000	2																M. Lewis.	
Shasta.	Shasta.	1,048	16																Dr. T. J. Edgecomb.	
Sierra Madre.	Los Angeles.	1,400	15	70.0	-0.5	96	19	50	4	35	T.	-0.41	T.	0	0	18	4	8	Mrs. A. E. Gregory.	
Sieraville.	Sierra.	5,000	2	53.4		87	18	24	3	54	1,23	0.43	0	0	4	18	3	9	C. D. Johnson,	
Sisson.	Siskiyou.	3,555	23	55.1	-3.3	80	13†	28	2	40	3.12	+2.22	1.85	0	0	5	17	3	10	Southern Pacific Co.
Soledad **.	Monterey.	188	38	71.0	+6.1	95	15	60	2†	..	0.00	-0.12	0.00	0	0	19	0	11	Do.	
Sonora.	Tuolumne.	1,825	24	66.5		90	18	45	5	36	1.27	+0.62	0.46	0	0	4	20	6	4	Chas. P. Jones.
Southeast Farallon.	San Francisco.	30	9																U. S. Weather Bureau.	
Springville.	Tulare.	4,000	5	62.8		89	18	32	5	38	0.35		0.25	0	0	2	27	0	3	D. L. Wishon.
Squirrel Inn.	San Bernardino.	5,280	2	60.9		82	19	36	4	30	0.00		0.00	0	0	28	2	0	A. D. Frantz.	
Stanwood.	Butte.	2,140	8	73.6		92	25	50	1†	30	4.85		2.00	0	0	4	24	1	5	Cal. Gas & Electric Co.
Stirling City.	do.	3,525	8	63.4		91	18	32	3	40	9.15		4.20	0	0	5	14	8	8	Butte Co. R. R. Co.
Stockton (S. H.).	San Joaquin.	23	41	68.4	-0.6	96	18	50	5	36	1.39	+1.18	0.70	0	0	4	24	4	2	State Hospital.
Storey.	Madera.	296	12	71.4	+0.3	100	18	45	5	46	0.00	-0.13	0.00	0	0	0	30	0	0	Santa Fe Co.
Suisun **.	Solano.	20	32																Southern Pacific Co.	
Sulphur Banks.	Lake.	1,350	66.2			91	20	43	4	41	2.69		1.89	0	0	5	20	4	6	w.
Summerdale.	Mariposa.	5,270	16	59.5	-1.4	84	18	33	3	34	1.19	-0.07	0.75	0	0	2	17	7	6	Do.
Summit.	Placer.	7,017	39	47.2	-6.5	69	20	28	9	26	0.81	+0.42	0.35	3.0	0	4	24	0	6	Southern Pacific Co.
Susanville.	Lassen.	4,175	23																James Branham.	
Tamarack.	Alpine.	8,000	6	44.2		70	20†	20	12	41	2.15		0.95	14.0	5	21	2	7	Cal. Gas & Electric Co.	
Tehachapi **.	Kern.	3,964	35	68.9	+2.8	86	19	50	3	..	0.01	-0.10	0.01	0	0	1	25	4	1	Southern Pacific Co.
Tehama.	Tehama.	220	41	67.4	-6.9	90	18	50	4	..	5.86	+5.50	3.60	0	0	4	22	1	7	n.
Tejon Rancho.	Kern.	1,500	10	63.4†		85	23	45	4	30	0.17		0.17	0	0	1			S. E. Bailey.	
Three Rivers.	Tulare.	870	2	69.9		98	18	41	4	48	0.03		0.03	0	0	1	20	5	5	E. D. Barton.
Towle.	Placer.	3,704	26	66.5	+3.2	92	11	40	9	50	3.02	+1.49	2.00	0	0	2	20	1	9	Southern Pacific Co.
Tracy **.	San Joaquin.	64	32	74.0	+2.0	96	18†	57	6	..	0.19	-0.02	0.17	0	0	2	20	5	5	Do.
Ukiah.	Mendocino.	620	19	65.5	-0.1	96	18	39	5	47	2.93	+2.36	2.00	0	0	5	19	6	5	Dr. Geo. McCowen.
Upper Lake.	Lake.	1,350	27	65.1	-1.8	99	18	37	4	52	2.56	+2.10	1.48	0	0	5	21	2	7	C. M. Hammond.
Vacaville.	Solano.	175	24	69.8	-1.0	104	18	49	16†	45	1.11	+0.68	0.60	0	0	2	23	6	1	G. C. Coburn.
Valley Springs **.	Calaveras.	673	23	74.3	+2.2	99	13	60	3	..	1.64	+1.16	1.40	0	0	2	20	4	6	Southern Pacific Co.
Visalia.	Tulare.	334	24								0.00	-0.42	0.00	0	0	0	26	0	4	Santa Fe Co.
Warner Springs.	San Diego.	3,165	4	66.6		95	18	37	4	41	0.00		0.00	0	0	0	29	1	0	Mrs. F. S. Sandford.
Wasco.	Kern.	336	12	71.8	-0.8	99	14	43	16†	55	T.	-0.33	T.	0	0	27	2	1	Santa Fe Co.	
Watsonville.	Santa Cruz.	23	16	58.8	-1.7	90	11†	35	30	54	0.66	+0.29	0.61	0	0	2	9	20	1	Spreckles Sugar Co.
Weaverville.	Trinity.	2,162	..	60.6		90	19	35	25	50	3.67		1.82	0	0	7	20	0	10	U. S. Forest Service.
Weitchpec.	Humboldt.	1,700	2	61.5		88	14†	43	1	34	5.96		2.00	0	0	8	20	5	5	M. E. Lathrop.
Westley **.	Stanislaus.	90	23	72.7	-1.3	98	18	56	10	..	0.00	-0.22	0.00	0	0	0	27	0	3	Southern Pacific Co.
Wheatland.	Yuba.	84	25	68.8	-1.1	95	18	51	3†	40	2.02	+1.51	1.46	0	0	4	22	2	6	William Lumbard.
Willows.	Glenn.	136	33	75.3	-0.3	99	18	54	3	33	3.37	+3.06	2.60	0	0	3	20	4	6	E. C. Mills.
Yosemite.	Mariposa.	3,945	8	60.6		95	18	29	5	58	1.68		1.30	0	0	2	24	1	5	J. P. Kelley.

*, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for September, 1912. District No. 11, California.*

Stations.	Watershed.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Oregon.																																	
Klamath Agency.	Klamath.		.40	.50	.40	.19	.71	.04																								1.30	
Klamath Falls.	do.	T.	.07	.03		.19																									1.04		
Lakeview.	Pitt.																																
Long Valley.	do.																																
Merrill.	Interior drain- age.																																
Yonna.	do.		.21	.02		.32	.33																								0.88		
California.																																	
Aguanga.	Coast.																															0.00	
Alameda.	do.		.03	.53	.05		.03	.23																							0.87		
Alturas.	Sacramento.		.51	.61	T.	.97																									2.09		
Angels Camp.	San Joaquin.																															T.	
Angiola.	do.																															0.00	
Antelope Valley.	do.																															0.18	
Antioch.	do.																															0.97	
Apots.	Coast.																															1.72	
Arrowhead Springs.	Sacramento.		.01	1.00		.01	.70																								0.00		
Auburn.	Ocean.																																
Avalon.	Coast.																																
Azusa.	do.																																
Bagdad.	Desert.																																
Bakersfield.	San Joaquin.																																
Barstow.	Desert.																																
Bear River.	San Joaquin.																																
Bear Valley (1).	Sacramento.		1.15	28		1.25	.75																								3.43		
Bear Valley (2).	San Joaquin.																																
Bear Valley Dam.	do.																															0.00	
Beaumont.	do.																																
Beaumont (near).	do.																																
Belotta.	do.		.10																													1.35	
Ben Lomond.	Coast.																															2.00	
Berkeley.	do.		.09																													1.46	
Biggs.	Sacramento.																															4.58	
Bishop.	Owens.																																
Bishop Creek.	do.																																0.00
Blocksburg.	Coast.	T.	.60	.38	.80	1.38	1.10	1.14																							6.43		
Blue Canyon.	Sacramento.		1.45	.30																												3.53	
Blythe.	Desert.																															T.	
Boulder Creek.	Coast.																															1.94	
Branscomb.	do.		.46	.84		2.88	1.35																							5.60			
Brawley.	Desert.																															0.00	
Burney.	Sacramento.	T.	.25	T.	14	2.24	.93																							3.56			
Butte Valley.	do.																																
Cahuilla.	Coast.																																
Calixico.	Desert.																																
Caliente.	San Joaquin.		.27																													0.27	
Calistoga.	Coast.		.40		2.40	.61																									3.41		
Campbell.	do.		.10	.03		.34																									T.	0.47	
Campo.	do.																																0.00
Camptonville (near).	Sacramento.		.06	.07		.08	2.21	.22																						2.64			
Cedarville.	M't'n Lakes.		.14	.09	.18		.15	.18																							7.72		
Chester.	Sacramento.	T.	.37			.05	1.85	.26																						2.53			
Chico.	do.		.15			.43	4.26																								4.84		
Chico (near).	do.		.06	.09			.54																								5.59		
China Flat.	Coast.		.52	.99	.53	2.36	.22	.04																					4.79				
Chino.	do.																															0.00	
Cisco.	Sacramento.		.60	.34			.04	2.10																						T.	3.08		
Claremont.	Coast.		.06	.16	.06	.69	1.82	T.																						T.	2.79		
Cloverdale.	do.																															0.00	
Coalinga.	San Joaquin.																																0.00
Colfax.	Sacramento.		1.19	.12		.04	1.45																								2.80		
Colgate.	do.		.35	.06		.20	1.11																								1.72		
Colusa.	do.																															3.20	
Corning.	Coast.		.09																													4.61	
Corona.	Coast.																															0.00	
Cuyamaca.	do.		.06			.05	1.11	.01																						0.01			
Davisville.	Sacramento.																															1.22	
Deer Creek.	do.		.02	1.27	.37	.09	1.23	.56																						3.54			
Del Monte.	Coast.		.05																												0.20		
Delta.	Sacramento.		.11	.27	.42	2.35	.60																							3.75			
Denair.	San Joaquin.																														0.10		
De Sabla.	Sacramento.		1.00																												7.15		
Descanso.	Coast.																														0.00		
Devils Canyon.	do.																														0.00		
Dimuba.	San Joaquin.		.13																												0.13		
Dobbins.	Sacramento.		.40	.02	.03	1.37																								1.82			
Downieville.	do.		.84	.22	.05	2.02	.10																										

TABLE 2.—*Daily precipitation for September, 1912. District No. 11—Continued.*

Stations.	Watershed.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total	
California—Con.																																	
Fouts Springs	Sacramento	.05	.09	.03	.79	1.14	T.																									2.10	
Fredalba	Coast																														0.00		
Fresno	San Joaquin		.10					T.																						0.10			
Friant	do																														4T.		
Fruto	Sacramento																																
Galt	San Joaquin																														3.62		
Georgetown	do																														0.71		
Gilroy	Coast	.05																													5.09		
Gitta	do																														13		
Glendora	do																														.01		
Glen Ranch	do																														0.03		
Glenville	San Joaquin																														0.06		
Glenwood	Coast																														2.47		
Gold Run	Sacramento																														2.95		
Gonzales	Coast																														T.		
Grass Valley	Sacramento	.96	.02																												2.87		
Greenland Ranch	Desert																														T.		
Greenville	Sacramento																														1.96		
Gridley	do																														2.56		
Groveland	San Joaquin																														0.00		
Guinda	Sacramento																														0.00		
Hanford	San Joaquin																														0.00		
Head Dam	Sacramento																														0.00		
Healdsburg	Coast																														3.57		
Hearst	do																														4.60		
Heber	Desert																														0.00		
Helen Mine	Coast	1.08	.70	.08	1.62	5.65																								9.13			
Hetch Hetchy	San Joaquin																														1.66		
Holcomb	Coast																														0.00		
Hollister	do																														0.15		
Hornbrook	Klamath	.06	.02	.01	.04	.05	.59																							0.77			
Hot Springs	San Joaquin																														0.14		
Hullville	Coast																														3.97		
Idyllwild	do																														0.00		
Independence	Owens																														0.00		
Indio	Desert																														7.12		
Inskip	Sacramento																														2.34		
Ione	San Joaquin																														0.89		
Jacksonville	do																														1.20		
Jamestown	do																														1.55		
Jenny Lind	do																														0.13		
Jolon	Coast																														0.00		
Julian	do																														2.71		
Kennedy Mine	San Joaquin																														3.52		
Kennett	Sacramento	.09	.04																												4.24		
Kentfield	Coast																														0.02		
Kernville	San Joaquin																														1.49		
King City	Coast																														0.65		
Knights Landing	Sacramento																														0.00		
La Grange	do																														1.85		
La Jolla	Coast																														3.53		
Lake Eleanor	San Joaquin																														0.40		
Lakeside	Coast																														2.60		
La Porte	do																														0.00		
Lathrop	San Joaquin																														0.00		
Laurel	Coast																														0.00		
Laytonville	do																														1.85		
Le Grand	San Joaquin																														T.		
Lemon Cove	do																														2.01		
Lick Observatory	Coast																														0.48		
Livermore	do																														0.77		
Lodi	San Joaquin																														0.00		
Lone Pine	Owens																														0.00		
Long Valley	Mt'n Lakes																														0.47		
Lordsburg	Coast																														0.00		
Los Alamos	do																														0.00		
Los Angeles	do																														1.59		
Los Banos	San Joaquin																														0.00		
Los Gatos	Coast																														1.59		
Los Molinos	Sacramento																														0.00		
Lowe Observatory	Coast																														0.00		
McCloud	Sacramento																														4.76		
McDoel	Klamath																														1.79		
Magdeline	Mt'n Lakes																														0.57		
Magalia	Sacramento																														9.03		
Mammoth Tank	Desert																														0.00		
Maricopa	San Joaquin																														0.60		
Marysville	Sacramento																														2.40		
Mecca	Desert		</td																														

TABLE 2.—*Daily precipitation for September, 1912. District No. 11—Continued.*

Stations.	Watershed.	Day of month.																													Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
California—Contd.																																	
Napa City.....	Coast.....																																2.37
Napa (S. H.).....	do.....																															2.52	
Needles.....	Desert.....																															0.00	
Nellie.....	Coast.....																															2.08	
Nevada City.....	Sacramento.....	T.	.90	.11	.03	1.11	.53																										
Newcastle.....	do.....																																
Newhall.....	Coast.....																															0.00	
Newman.....	San Joaquin.....																															0.14	
North Bloomfield.....	Sacramento.....																															3.15	
North Fork.....	San Joaquin.....																															2.45	
North Lakeport.....	Coast.....																															0.59	
Oakdale.....	San Joaquin.....																															0.00	
Oak Grove.....	Coast.....																															0.93	
Oakville.....	do.....																															2.00	
Oceanside.....	do.....																															T.	
Ojai Valley.....	do.....																															0.00	
Orland.....	Sacramento.....																															3.82	
Orleans.....	Klamath.....	.04	.82	.56	.57	1.90	.53	.14																							4.64		
Oroville.....	Sacramento.....																															3.43	
Ozeana.....	Coast.....																															0.00	
Palermo.....	Sacramento.....																															2.20	
Palm Springs.....	Desert.....																															0.00	
Parkfield.....	Coast.....																															0.04	
Pasadena.....	do.....																															0.00	
Paso Robles.....	do.....																															0.04	
Peachland.....	do.....																															2.94	
Phoenix Dam.....	San Joaquin.....																															0.00	
Pilot Creek.....	Sacramento.....																															4.88	
Pinchot.....	Coast.....																															0.00	
Pine Crest.....	do.....																															0.00	
Placerville.....	Sacramento.....																															3.33	
Point Lobos.....	Coast.....																															1.27	
Point Loma.....	do.....																															0.01	
Point Reyes.....	do.....																															1.91	
Porterville.....	San Joaquin.....																															0.00	
Portulaca.....	do.....																															2.56	
Prattville.....	Sacramento.....	.78	T.																														
Priest Valley.....	Coast.....																															2.52	
Quincy.....	Sacramento.....																															0.00	
Red Bluff.....	do.....																															4.12	
Redding.....	do.....																															3.62	
Redlands.....	Coast.....																															0.03	
Reedley.....	San Joaquin.....																															1.10	
Repressa.....	Sacramento.....																															T.	
Rialto (near).....	Coast.....																															0.00	
Rio Vista.....	Sacramento.....																															1.49	
Riverside.....	Coast.....																															0.01	
Rocklin.....	Sacramento.....																															1.60	
Rohnerville.....	Coast.....																															3.58	
Sacramento.....	Sacramento.....																															1.25	
Saint Helena.....	Coast.....																															2.85	
Salinas.....	do.....																															0.07	
San Bernardino.....	do.....																															0.01	
San Diego.....	do.....																															0.00	
San Francisco.....	do.....																															1.25	
San Jacinto.....	do.....																															0.00	
San Jose.....	do.....																															0.71	
San Luis Obispo.....	do.....																															0.04	
San Mateo.....	do.....																															0.41	
San Miguel.....	Ocean.....																															0.00	
San Miguel Island.....	San Joaquin.....																															0.00	
Sanger.....	Coast.....																															0.00	
Santa Ana River.....	do.....																															T.	
Santa Barbara.....	do.....																															0.48	
Santa Clara.....	do.....																															0.73	
Santa Cruz.....	do.....																															0.00	
Santa Margarita.....	do.....																															0.00	
Santa Maria.....	do.....																															0.00	
Santa Monica.....	do.....																															2.99	
Sausalito.....	do.....																															2.12	
Selma.....	San Joaquin.....																															0.00	
Seven Oaks.....	Coast.....																															0.00	
Shasta.....	Sacramento.....																															0.00	
Shively.....	Coast.....																															0.02	
Sierra Madre.....	do.....																															1.23	
Sierraville.....	Coast.....		</td																														

TABLE 2.—*Daily precipitation for September, 1912. District No. 11—Continued.*

Stations.	Watershed.	Day of month.																													Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
<i>California—Contd.</i>																																		
Tracy.....	San Joaquin.....			T.	.02	.17																										0.19		
Tulare.....	do.....																															0.00		
Tustin (near).....	Coast.....			.12	.16	.30	.35	2.00																						0.00				
Ukiah.....	do.....																															2.93		
Upland.....	do.....																																	
Upper Lake.....	Sacramento.....			.11	.22	.05	.70	1.48																							2.56			
Upper Matole.....	Coast.....			.39	.77	.12	1.90	1.90	.80																						5.88			
Vacaville.....	Sacramento.....							.51	.00																							1.11		
Valley Springs.....	San Joaquin.....					.24			1.40																							1.64		
Visalia.....	do.....																																0.00	
Warner Springs.....	Coast.....																																0.00	
Wasco.....	San Joaquin.....	T.																														T.		
Watsonville.....	Coast.....			.05				.61																								0.66		
Weaverville.....	do.....			.27	.25		1.21	1.82	.06																							3.67		
Weitchpee.....	Klamath.....			1.12	1.15		2.00	1.27	.29																						5.96			
West Branch.....	Sacramento.....			.91	T.		.35	4.84	.78																						6.88			
Westley.....	San Joaquin.....																																0.00	
West Point.....	do.....			.53	.38			2.16																								3.07		
West Saticoy.....	Coast.....			.20			.57	2.60																								0.00		
Wheatland.....	Sacramento.....			.49	.01	.06	1.46																									2.02		
Willows.....	do.....																																	3.37
Yosemite.....	San Joaquin.....			1.30				.38																									1.68	

* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

|| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE No. 3.—Maximum and minimum temperatures at selected stations for September, 1912. District No. 11, California.

Date	California.																									
	Alturas. §§		Barstow.		Branscomb.		Brawley.		Colusa.		Eureka.		Fresno.		Independence.		Los Angeles.		Mount Tamalpais.		Nevada City.		Porterville.		Red Bluff.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	78	37	94	60	74	47	96	62	84	55	63	52	88	63	85	53	76	62	62	48	78	46	95	54	83	59
2.....	68	56	91	62	55	46	95	64	82	53	64	53	80	57	84	53	75	61	53	46	66	45	89	52	74	56
3.....	56	36	83	60	55	41	94	65	71	49	58	51	71	53	78	58	72	58	54	45	62	43	84	55	66	49
4.....	56	40	78	52	65	38	82	59	70	51	60	47	74	51	66	41	71	56	59	45	65	42	78	45	69	48
5.....	55	38	84	47	55	41	89	60	65	52	60	52	79	49	72	39	76	56	54	45	63	38	85	47	62	54
6.....	58	47	89	50	57	38	92	55	68	54	62	55	78	56	79	50	75	55	54	49	64	38	82	52	58	52
7.....	58	40	82	54	69	42	95	63	69	54	62	53	79	60	76	54	72	57	60	50	68	45	81	48	71	55
8.....	62	34	84	59	75	44	90	60	72	52	61	54	79	55	72	50	75	59	63	49	73	40	83	49	77	55
9.....	71	30	85	58	80	46	92	62	72	51	66	50	85	54	74	50	77	57	73	57	82	38	89	55	84	58
10.....	77	30	80	55	84	46	95	55	79	53	71	52	92	57	76	59	82	58	75	64	85	38	95	54	88	60
11.....	81	34	81	54	85	47	98	58	83	51	65	51	96	59	80	48	86	55	76	68	88	42	99	57	88	58
12.....	85	35	90	55	88	51	102	56	88	52	60	52	96	61	84	52	81	58	71	91	39	101	58	95	61	95
13.....	87	36	86	55	90	53	103	62	87	61	66	52	98	64	86	53	75	54	85	71	91	46	101	59	91	63
14.....	82	44	85	56	82	49	104	65	87	60	58	51	97	63	89	52	73	57	71	63	84	46	98	57	94	64
15.....	79	32	90	55	68	42	97	64	78	55	60	54	84	56	79	52	75	57	63	47	79	45	99	51	77	60
16.....	84	32	90	54	73	42	98	63	75	53	67	54	83	56	80	50	75	57	63	49	79	40	86	54	78	56
17.....	86	33	95	57	75	43	102	63	80	55	63	53	89	57	84	45	84	58	71	60	88	42	94	62	85	55
18.....	90	36	99	62	85	47	106	66	94	59	70	52	98	61	89	54	88	59	87	70	96	48	100	63	99	59
19.....	83	35	100	60	95	50	106	66	89	58	70	52	97	64	91	56	100	62	82	72	92	49	101	63	92	63
20.....	80	36	101	70	92	51	107	73	88	60	62	52	95	66	90	60	92	68	76	69	89	47	100	61	94	63
21.....	85	30	91	56	90	51	99	69	89	58	59	51	94	64	83	54	87	65	75	65	89	45	102	62	94	63
22.....	82	32	95	57	85	50	99	60	85	57	54	51	95	62	83	47	82	60	82	67	88	45	103	60	87	59
23.....	74	38	98	65	84	48	101	64	84	53	61	51	90	58	87	53	75	59	74	58	83	43	99	59	89	58
24.....	70	30	94	64	76	46	96	61	84	51	63	46	88	56	80	58	70	60	71	62	86	41	94	53	85	66
25.....	81	25	85	56	70	47	96	61	84	51	67	49	93	58	78	49	76	57	79	66	87	39	97	56	90	60
Mns.....	76.0	35.3	90.0	56.8	75.1	46.0	97.3	62.5	80.3	54.6	62.9	51.4	88.0	58.4	81.1	50.6	78.9	58.4	69.6	57.8	81.0	43.0	93.3	55.8	82.8	58.4
Date.	California.																									
	Redlands.		Sacramento.		San Diego.		San Francisco.		San Jose.		San Luis Obispo.		Santa Barbara.		Santa Rosa.		Sisson.		Summit.		Yosemite.					
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	81	57	77	57	70	64	65	53	75	51	75	50	68	57	79	47	77	37	52	32	88	36				
2.....	81	57	73	55	69	61	70	55	77	54	73	46	75	52	69	47	68	28	52	38	86	36				
3.....	72	50	68	53	72	61	64	54	66	50	66	53	76	53	63	40	50	33	48	32	73	39				
4.....	73	46	72	52	70	56	67	55	72	50	66	50	72	50	72	43	51	36	42	29	65	33				
5.....	79	45	70	52	69	54	67	54	73	46	75	42	72	47	62	44	54	38	48	31	74	29				
6.....	83	46	62	56	71	56	64	59	67	59	69	53	72	49	63	55	55	55	34	41	33	76	43			
7.....	80	48	71	55	70	58	68	59	73	54	71	57	74	52	64	36	40	34	63	41						
8.....	73	56	76	54	70	61	67	53	74	52	72	52	75	51	76	71	60	35	48	34	66	38				
9.....	85	47	82	55	71	59	80	56	84	47	83	47	73	50	88	47	68	37	51	28	70	36				
10.....	91	50	84	56	71	60	85	60	88	53	91	50	77	50	90	46	74	38	57	31	83	33				
11.....	94	55	88	59	71	59	88	61	90	53	92	57	73	50	92	47	75	42	54	30	85	37				
12.....	96	56	90	61	71	57	89	63	93	53	86	53	72	55	93	49	77	45	59	33	90	37				
13.....	96	55	92	62	68	59	71	54	93	52	81	50	69	56	90	50	80	49	60	40	91	39				
14.....	82	49	88	58	68	59	61	54	73	54	67	49	64	56	75	51	75	40	62	44	89	39				
15.....	82	54	72	55	68	60	65	56	73	54	67	67	60	68	62	70	44	63	43	87	36					
16.....	89	50	78	53	68	60	69	58	74	48	71	54	70	51	77	53	75	41	64	39	88	37				
17.....	100	53	84	56	72	58	81	53	85	48	94	48	80	49	88	47	76	43	65	44	93	35				
18.....	102	65	95	64	76	62	94	69	99	58	84	56	79	53	101	53	80	40	66	45	95	40				
19.....	102	62	94	64	86	64	81	62	92	60	91	58	102	56	89	53	80	42	68	46	93	40				
20.....	96	65	92	63	85	65	69	57	88	56	90	57	78	58	82	55	75	41	69	48	91	40				
21.....	98	59	92	59	78	61	64	56	77	49	75	54	79	60	79	46	75	44	67	43	90	41				
22.....	91	60	87	58	70	62	58	53	73	50	74	48	75	55	77	52	68	44	80	44	67	45	90	40		
23.....	81	55	85	54	69	63	62	54	75	53	65	52	68	57	74	52	62	41	68	45	91	41				
24.....	75	57	84	55	67																					